

# ***DataTurbine and HPWREN***

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OPEN SOURCE DATA  TURBINE INITIATIVE  
*Empowering the Scientific Community with Streaming Data Middleware*



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# Outline

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- **What is DataTurbine?**
- **Activities with HPWREN**
- **Current status and plans**
- **Open-source DataTurbine initiative**



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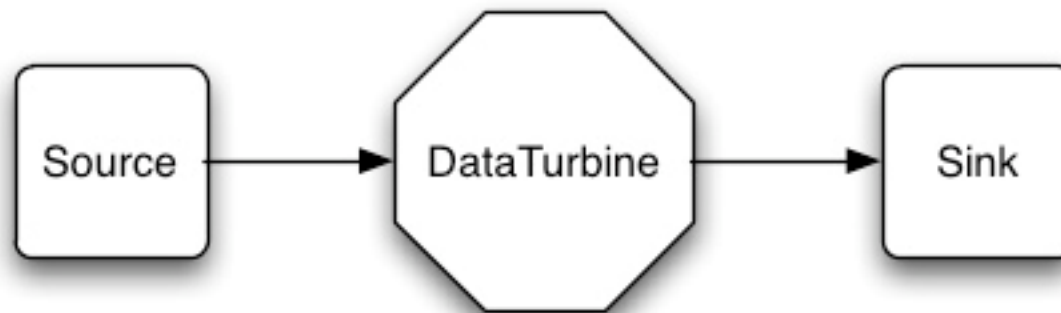


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# ***What is DataTurbine?***

- **DataTurbine is an open source, Java based network ring buffer for all sorts of data. You can use memory + disk for the ring, and it runs on almost any JVM.**
- **The basic division of work looks like this:**



# Marketing image



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# ***More about DataTurbine***

- **Sources can have multiple channels, with varied types - numeric (e.g. sensors), video, audio, text, binary blobs.**
- **We have a variety of sources and sinks, developed in-house, from the original vendor Creare and also community contributed**



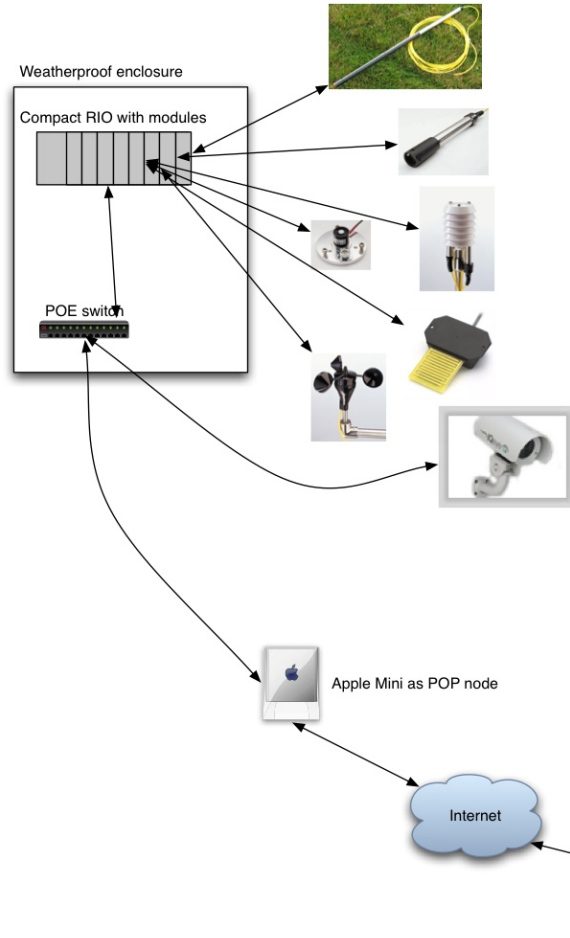
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# HPWREN deployment



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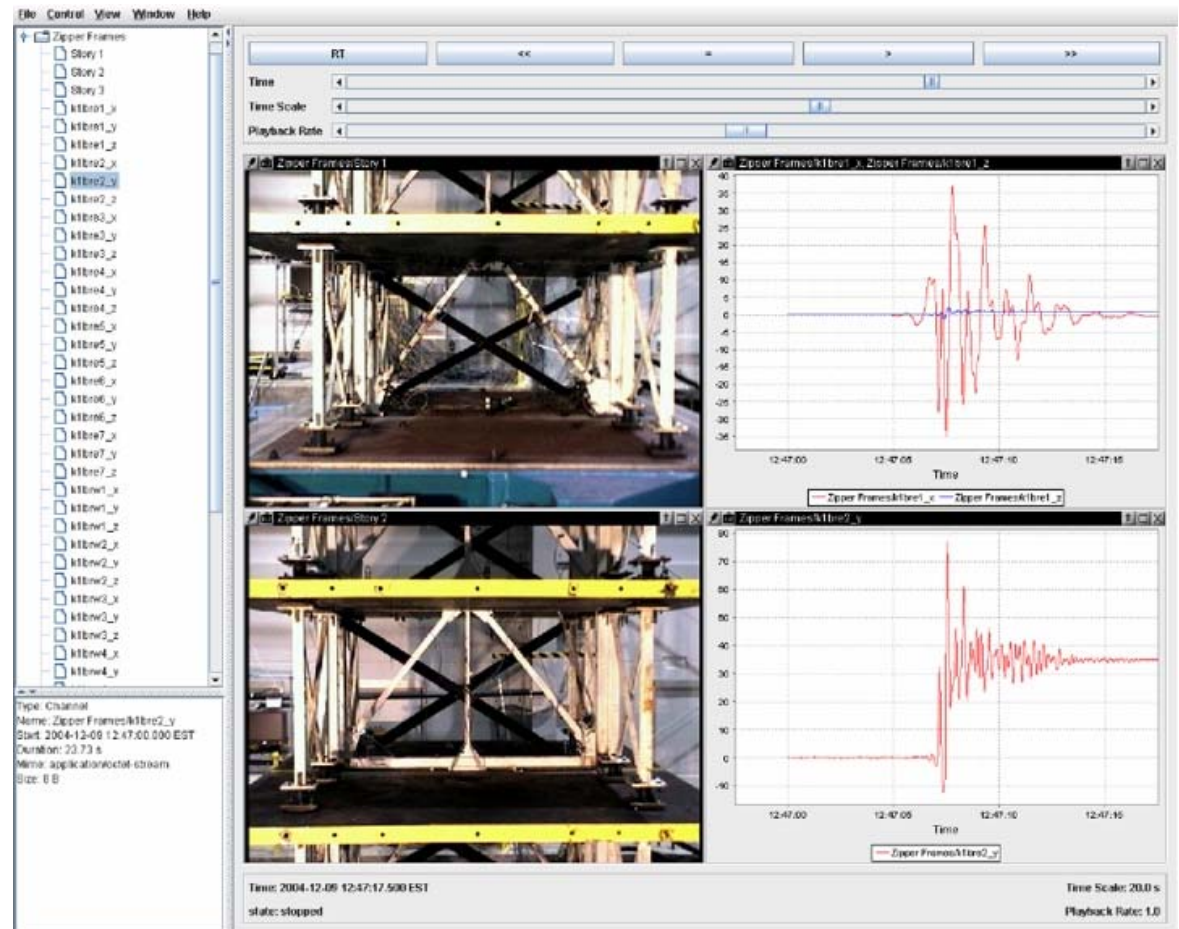
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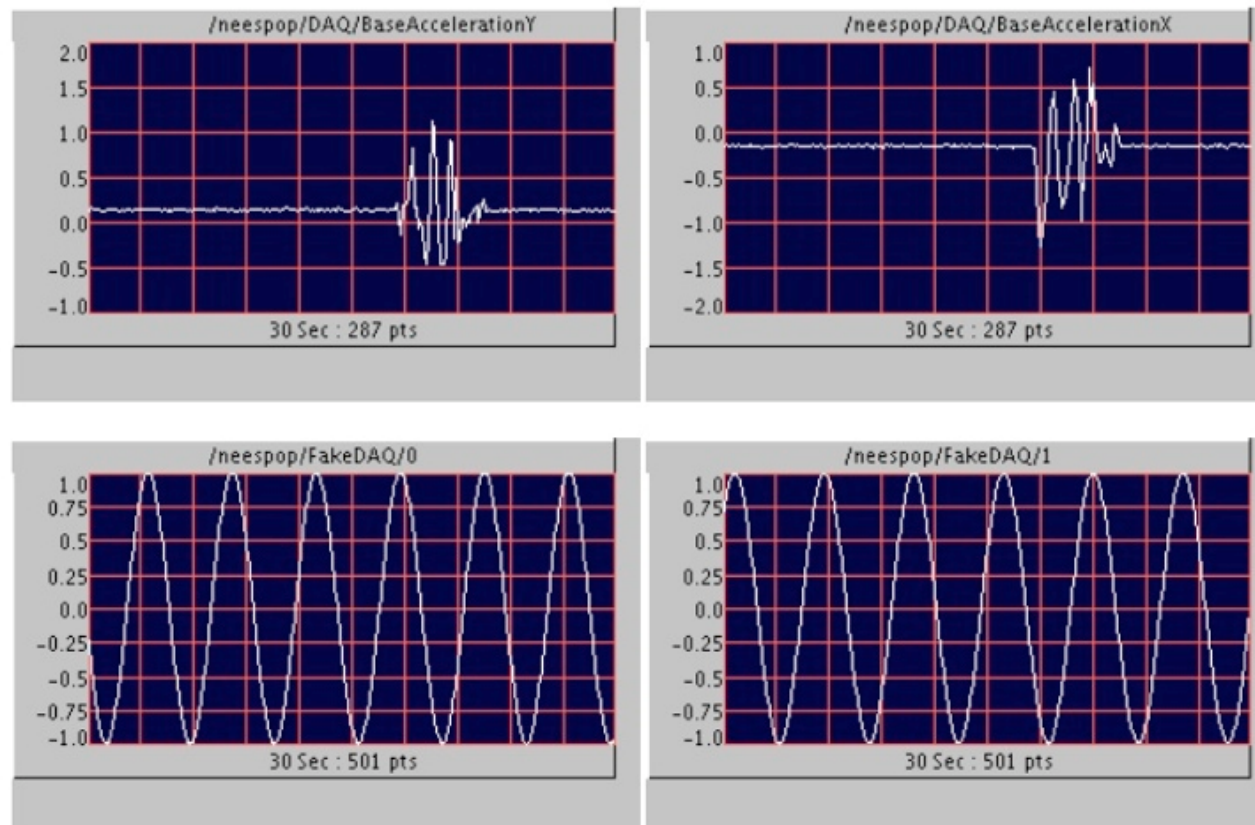
# ***RDV: Our best DataTurbine client***

RDV is the Real-time Data Viewer, written by Jason Hanley at SUNY Buffalo for NEES. It's plugin-based Java, handles time series, X vs Y, FFTs, audio, video, TiVO-style navigation, per-channel metadata, events and more.



# ***You can also view data via the web***

**Data, converted to graphs by the PNG plugin**





# ***Future plans***

- **We have NSF (SDCI) funds to improve, extend and enhance DataTurbine over the next two years, and other funds to support a variety of deployments.**
- **Plan to**
  - **Add triggered video data (iQeye, Axis)**
  - **Web display**
  - **Continue collaboration with HPWREN**



# *Where to learn more*

- Code, documentation, screenshots, FAQ, wiki and more are all available at
  - <http://dataturbine.org/>
- Thank you!



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